No 28.

Caradoc and Severn Valley Field Club.

RECORD OF BARE FACTS

FOR THE YEAR 1918.

A LIST OF THE
MORE NOTEWORTHY OBSERVATIONS
MADE BY MEMBERS OF THE
CARADOC & SEVERN VALLEY FIELD CLUB
AND OTHERS.

SHREWSBURY
ADNITT & NAUNTON, LTD, PRINTERS, THE SQUARE.

CONTRIBUTORS:

MR. W. B. ALLEN, Benthall.
„ E. W. BOWCOCK, Wem.
REV. E. BROWN, Bucknell.
MR. S. G CUMMINGS, Chester.
„ J. STEELE ELLIOTT, Dowles.
REV. O. M. FIELDEN, Frankton.
MR. F. FLORIAN, Shrewsbury.
„ H. E. FORREST, Shrewsbury.
„ W. G. FULCHER, Shrewsbury.
„ H. F. HARRIES, Shrewsbury.
„ R. W. H. HODGES, Ellesmere.
„ T. R. HORTON, Wenlock.
„ T. HUXLEY, Shrewsbury.
REV. W. S. INGRAMS, Shrewsbury.
MR. G. R. JEBB, Great Barr.
„ D. A. JONES, Harlech.
„ J. G. LANG, Ludlow.
MR. W. MARCHANT, Shifnal.
„ F. H. MILLS, Bangor.
„ J. COSMO MELVILL, Meole.
„ G. MOUNTFORD, Churchstoke.
„ O. R. OWEN, Knighton.
„ T. E. PICKERING, Shrewsbury.
MISS F. PITT, Bridgnorth.
MR. G. POTTS, Benthall.
DR. E. H. O. SANKEY, Boreatton.
REV. F. SARJEANTSON, Acton Burnell.
MR. A. E. WHITE, Shrewsbury.
REV. E. LORIMER THOMAS, Holywell.
MR. BROWNLOW TOWER, Ellesmere.
„ H. WOODHOUSE, Ludlow.

The names printed in italics after occurences recorded are those of the observers.

The names of Meteorological observers are given in the first table under that head.

BOTANY.

N.B.—Roman numerals refer to the Botanical Districts of the County, as on the "Caradoc Map."

FLOWERING PLANTS.

The fourth, and happily the last year of the European War, was the most exacting and critical, and consequently it is not to be expected that any peaceful occupations, such as that of the quiet study of Botany and Natural History should thrive at such a juncture. Accordingly, the Recorder feels more than usual gratitude to those few observers who have been good enough to give their assistance this past season. Such are, Mr. George Potts, Miss. Pitt, Mr. Arthur E. White, Rev O. M. Feilden, and Mr. G. R. Jebb. Mr. J. R. Duncan writes with regret that he has found manifold duties interfering so seriously with his usual Cryptogamic investigations, that he has not been able to forward any lists this year.

In July 1918, Captain Gilbert E. Johnson met his death by drowning in an Italian Lake, while bathing. He was a very valuable correspondent and contributor to these records for several years, and we feel his loss well-nigh irreparable. A man of great promise, he succeeded well in all he undertook both in civil and military matters, and his early death is regretted much by all who knew him. He was the youngest son of our Treasurer, Mr. W. Johnson, of Shrewsbury, and was born in 1889.

Thalictrum flavum, *Linn.*

VII. In a wood near the R. Roden, about 2 miles below Wem. *G. R. Jebb.*

Ranunculus auricomus, *L.*

IV. With perfect petals, Meole Brace. Again I have noticed this pleasing change from the almost invariable deterioration of one or more petals on each flower. The particular plants noticed grew in shade, and protected from wind or stress of elements. *J. C. Melvill*

Caltha palustris. *L.*
var. **Guerangerii.** *(Boreau.)*

IV. Between Meole Brace and Pulley, in water meadows. *J. C. Melvill.*

Meconopsis cambrica. *Vig.*

XIII. Near Bridgnorth. *Miss Pitt.*

Cardamine flexuosa. *With.*

IV. Banks of Rea Brook, Meole Brace. I have had the opinon of experts as to this, and find they differ—some considering the variety. umbrosa, others that it indeed seems near the typicial hirsuta, *Linn.* My own view leans towards umbrosa, which, apparently, is not a common form, the whole plant larger and more luxuriant, leaflets more wavy in outline.

Hesperis matronalis. *L.*

IV. This seems to have now quite disappeared from the locality where in 1909-1910 it grew in great abundance near the Rea Brook. *J. C. Melvill.*

Sisymbrium thalianum. *J. Gay,*

IV. Wall at Pulley. Waste ground at Redhill. *J. C. Melvill.*

Stellaria (Malachiun). aquatica. *Scop.*

IV. Near the Sweet Lake, Nobold. *J. C. Melvill.*

Elatine hexandra. *D.C.*

IV. Growing in the open, in dried mud, not submerged, just below Bomere Farm, N. of the Pool, very luxuriant, I had not observed it for some years, though annually sought for in the Bomere Pool, where, especially in two places it used to abound. *J. C. Melvill.*

Hypericum dubium *Leers.*
var: **maculatum** *Bab.*

IV. Bomere Pool, very abundant. Not noticed previously in this locality. *J. C. Melvill.*

Geranium pyrenaicum. *Burm fil.*

IV. Much increasing at Nobold. *J. C. Melvill.*

Oxalis corniculata. *Linn.*

IV. In garden paths, especially near greenhouses. An alien. *J. C Melvill.*

Euonymus europæus. *Linn.*

IV. Pulley Common, particulary luxuriant. *Mrs Wyndowe.*

Rhamnus Frangula. *Linn.*

IV. Shomere Pool. Fine shrubs. *J C Melvill.*

Prunus insititia. *Huds.*

XII. Linley. Hedgebanks, a variety with greenish-yellow, ripe, globular fruit, doubtfully wild. *George Potts.*

Spiræa salicifoia. *Linn.*

VII. Whixall Moss. *Mr. G. R. Jebb,* who writes concerning this: "Some years ago, I planted, S. Salicifolia in the towing path-hedge land by Whixall Moss, and I find that this has now spread and extended its area a good

deal." It is noted as occurring in most English Counties, but, in almost every instance, there is some suspicion of either a purposed or adventitious introduction and origin. Its head quarters seem to be Canadian.

Saxifraga granulata. *Linn.*

XIII. Bridgnorth, The Hermitage. The Meadow Saxifrage was growing on the north bank of the road leading to this place. *Rev. O. M. Feilden.*

Parnassia palustris. *Linn.*

VII. Near Woodlands, Wolverley, Wem. *G. R. Jebb.*

This beautiful plant does not seem as frequent in this County as formerly, vide Leighton Flora, p p. 136 and 157 for many localities.

Drosera rotundifolia. *L.*
anglica *Hudson.*
intermedia. *Hayne.*

VII. Whixall Moss. All three species. *G. R. Jebb.*

Epilobium obscurum X adnatum. ?

IV. Waste ground near Rea Brook, August, 1918. I have sent the whole of my gathering of this curious form, to the Botanical Exchange Club, and hope to be able to record in next years "Bare Facts" the result of the determination of experts. The particular ground, where it grew, is near the banks of the Brook, where are to be found several species of these plants, notably: Angustifolium, hirsutum, parviflorum, montanum, roseum, adnatum, (very rarely,) obscurum and palustre. *J. C. Melvill.*

Œnothera biennis. *Linn*

IV. Kingsland, Shrewsbury, probally an escape. *J. C. Melvill.*

Circæa alpina. *Linn.*

IV. Meole Brace, a weed. This I recorded some time ago as var: intermedia, *(Ehrart).* It has been determined now to appertain either to the typical state, as found commonly in mountainous districts, N. of England and Scotland, and it is curious therefore, to find it thriving as an alien in low lying districts. I have lately seen it in similar situations in N. Cheshire. *J. C. Melvill.*

Sambucus nigra. *Linn.*

II. Fltz.
VIII. and XII. Benthall, Broseley, and Wenlock. In all instances with greenish-white fruit. *George Potts.*

Dipsacus pilosus. *Linn.*

IV. Rea Brook. Much extending in area, and growing tall and luxuriant in water-meadows, impinging on the stream. *J. C. Melvill.*

Inula Conyza. *D.C.*
II. Near Baschurch. *G. R. Jebb.*

Bidens tripartita, *Linn.*

IV. N. part of Bomere Pool. In a locality where I have not before observe it. *J. C. Melvill.*

Hieracium pratense. *Tausch.*

IV. This Hawkweed, noticed for the first time as Salopian about ten years ago, was thought to have disappeared from its one locality, but in 1918 it reappeared on the same stone wall in small quantity. It is wise not to give the exact details. *J. C. Mevill.*

Lathræa Squamaria. *Linn.*

IX. Near Craven Arms. *G. R. Jebb.*

Mentha Hirsuta. *Huilsen. Var*: **Subglabra Baker.**

IV. By Rea Brook, Meole Brace. The mint recorded last season as not quite satisfactorily determined, has been pronounced by Mr. C. E. Salmon, as given above. *J. C. Melvill.*

Plantago lanceolata. *Linn. Var*: *Timbali Reichb fil.*

IV. Cultivated ground, Meole Brace. *J. C. Melvill.*

Daphne Laureola. *Linn.*

III. The Pant, Llanymynech. *G. R. Jebb.*

Euphorbia Cyparissias. *Linn.*

VIII. Buildwas. Two plants. *G. Potts & W. B. Allen.*

Paris quadrifolia, *Linn.*

IV. Weir Coppice Nobold. *Arthur E. White.*

ZOOLOGY.

The effects of the severe frost of February, 1917 were still noticeable in 1918. The birds which appear to have suffered most are the Goldcrest and Long-tailed Tit, which were almost exterminated throughout our district. Peewits, Starlings, and the Thrush-tribe have only partially recovered, while the Sparrow is still—we are glad to see—far below average numbers. Mr. H. Woodhouse reports that in the mountainous Clee district a great snowstorm on 14—17 January, 1918 killed a large number of Thrushes, and small birds, while a deep snow on 21st April was disastrous for the young birds. On the other hand the departure of so many gamekeepers for service in the Army has given the *Raptores* a respite, with the result that many observers report a marked increase in the numbers of Owls, Buzzards, Kestrels and Sparrow-hawks. The Little Owl appears to be extending its range westwards steadily, and is evidently firmly established in our district, while two nests have been found in Radnorshire.

The most notable record of the year 1918 was the return of the Raven to the identical spot where a pair last bred in Shropshire 42 years ago. Four young were hatched, but of these two were murdered just as they were ready to fly.

Of locally rare birds there are records of a Wryneck in Shrewsbury, Quails at Bridgnorth, Common Tern and Goosanders on the Severn, Cormorants in unusual numbers at Ellesmere, Black-headed and Herring Gulls in various places, and a Bittern shot at Westbury in February which had haunted the neighbourhood for about five months; three Bitterns were also noted in Anglesey in January.

Among the summer migrants several remarkably early arrivals were recorded—Cuckoo, April 12th and 15th; Swallow, April 9th and 12th; and Corncrake, April 11th. On the other hand the bulk of House Martins and Swifts were decidedly late in arriving. The Cuckoo continued to call regularly up to the end of June, and was even heard on July 1st.

Among Mammals a record of special interest is a Pine Marten trapped near Wellington in May—another illustration of the wandering propensity of this animal, for it cannot have been long in such a district without discovery. A vertebra of Sibbald's Rorqual—the largest animal in the world to-day—was cast up by the sea at Barmouth; this is new to the Welsh Fauna.

H. E. FORREST

MAMMALS.

Pipistrellus noctula (Noctule.) *Elliott.* March 13. On wing. *Dowles.*

P. pipistrellus (Pipistrelle.) *Pitt.* Jan. 22, 25, and Feb. 5. Flying Bridgnorth; mild weather.

Plecotus auritus (Long-eared Bat.) *Pitt.* Feb. 5, one flying about in house, Bridgnorth, early morning.

Talpa europæa (Mole). *Brown.* Great increase Bucknell district. *Pitt.* Jan., Silver-grey male taken Hem Farm, Broseley.

Meles meles (Badger). *Sankey.* July 3., one caught Boreatton.

Vulpes vulpes (Fox). *Mountford* Jan. 20, one in farmyard: June 16th, three young: Churchstoke.

Mustela erminea (Stoat or Ermine). *Pitt.* Feb. 26, one in pure-white ermine coat seen, Albynes, Bridgnorth.

Martes martes (Pine Marten). *Pitt.* May 27., old female trapped near Wellington: skull in possession of Mr. R. Bates, Birmingham.

Lepus timidus (Hare). *Marchant.* Dec. 24, one shot in Weston Park, Shifnal: some were turned out in N. Staffordshire about 15 years ago.

Mus sylvaticus (Long-tailed Field-mouse). *Pitt.* Pests in garden. April. May; destroyed several rows of peas.

M. S. wintoni (Yellow-necked mouse). *Pitt.* Pests in garden. April May; destroyed several rows of peas.

Muscardinus avellanarius (Dormouse). *Pitt.* Scarce 1918, Bridgnorth.

Sciurus vulgaris (Squirrel). *Mountford.* Aug. 30. One, buying nuts, Churchstoke.

Balænoptera sibbaldii (Sibbald's Rorqual). *Forrest.* In the shop of Mr. Davies, fishmonger, Barmouth. I identified a large lumbar vertebra of this immense creature—the largest of existing animals. It was cast up by the sea about 1900. It measures 13 inches across the disc. This is a new record for North Wales.

BIRDS.

Turdus musicus (Song Thrush). *Elliott.* April 19, young on wing, Dowles. *Bowcock.* 6th, one egg, Wem. *Woodhouse.* Jan. 27th, singing, Corvedale. *Elliott.* Dec. 5, in fair song, Dowles.

T. viscivorus (Mistle Thrush). *Forvest.* Feb. 5th onwards, singing in garden Bayston Hill. *Bowcock.* April 2, one egg, Wem. *Mountford.* March 24, nest, four eggs, Churchstoke. *Forrest.* Aug. 15, one, feeding on Yew berries while fluttering at end of bough.

T. pilaris (Fieldfare). *Horton.* Feb., Mar., many males, but very few females, Wenlock. *Woodhouse.* Oct. 21, Munslow. *Huxley.* Oct. 16, small flock, Shelton. *Elliott.* 27th about eighty. Dowles. *Pitt.* None in Spring, Bridgnorth, but great numbers from Oct. 19th onwards: first flocks travelling N.W.

T. iliacus (Redwing). *Pitt.* March 18. Pied one among flock 2/300 feeding, Albynes; tail and primaries white, particularly noticeable in flight. Oct. 13, twelve going W.; other flocks on 19th and 20th. *Elliott.* Oct. 16, five, Dowles, and fifty on 20th.

T. merula (Blackbird). *Woodhouse.* March 27, singing, Corvedale, but deep snow April 21, put a stop to Blackbirds and Thrushes. *Pitt.* Oct. 13th, many about Bridgnorth, apparently migrating.

T. torquatus (Ring Ouzel). *Owen.* April 22, Knighton—late *Thomas.* May 29, three, Llandinam.

Saxicola œnanthe (Wheatear). *Forrest.* March 29, Betton, and May 3, Bayston Hill. *Elliott.* April 22, Dowles. *Owen.* 1st. Knighton.

Pratincola rubetra (Whinchat). *Elliott.* May 3, Dowles. *Brown.* Much scarcer than usual, Bucknell district. *Mountford.* May 11, nest, four eggs, Churchstoke. *Thomas.* May 5, two males, Holywell; numerous this year. *Pitt.* 3rd, Bridgnorth.

Ruticilla phœnicurus (Redstart). *Potts.* May 11, none up to this date, Benthall. *Owen.* April 17, Knighton; nest, two eggs, May 14th.

Erithacus rubecula (Robin). *Bowcock.* April 9, young, Wem.

Daulias luscinia (Nightingale). *Potts.* May 5, Ironbridge.

Sylvia cinerea (Whitethroat). *Potts.* May 1, one, Coalport. *Elliott.* 3rd, Dowles. *Forrest.* 5th, Middletown; 7th, Bayston Hill; 9th numerous. *Lang.* 6th, Ludlow. *Thomas.* 1st, Holywell; many 4th. *Owen.* April 27, Knighton.

S. curruca (Lesser Whitethroat). *Elliott.* April 29. Dowles. *Thomas.* May 4, three, Holywell. *Cummings.* June, many pairs noted in Red Wharf Bay district, Anglesey; one nest with half-fledged young on 10th. *Owen.* July 21, nest, two eggs, Knighton. *Pitt.* May 4, Bridgnorth.

S. atricapilla (Blackcap). *Potts.* April 13, Ironbridge. *Elliott.* 26th, Dowles. *Forrest.* May 9, Shrewsbury. *Lang.* 8th Ludlow. *Thomas.* April 22, Holywell; numerous this year. *Pitt* May 8, singing splendidly, Bridgnorth.

S. hortensis (Garden Warbler). *Potts.* April 27, Benthall. *Elliott.* May 4, Dowles. *Brown.* Scarce Bucknell district. *Lang.* 6th, Ludlow. *Owen.* 11th, Knighton. *Thomas.* Numerous, Llandinam.

Regulus cristatus (Goldcrest). *Woodhouse and others.* Very few this year; not yet recovered from the fatal effects of early frost of 1917. *Owen.* July 13, seven eggs, Knighton. *Thomas.* May 29, three, singing Llandinam.

Phylloscopus rufus (Chiffchaff). *Elliott.* March 29. Dowles. *Forrest.* April 3rd, Betton. *Potts.* 6th, six, Ironbridge. *Horton.* 8th, Wenlock. *Lang.* 22nd, Ludlow. *Mountford.* 19th, Churchstoke. *Thomas.* April 11th, Holywell; nest, six eggs (fresh), May 22. *Cummings.* June. Numerous about Red Wharf Bay, Anglesey: 8th, nest, with young in small gorse-bush, much exposed. *Owen.* April 8, Knighton. *Elliott.* In song till Sept. 24. *Pitt.* April 22, Bridgnorth.

P. trochilus (Willow Wren). *Potts.* April 13, Ironbridge. *Elliott.* Dowles. *Forrest.* April 14, Bayston Hill; on 19th, sang through snowstorm. *Bowcock.* 27th, Wem. *Lang.* 16th, Ludlow. *Thomas.* Holywell, first arrived 18th, bulk 24th. *Owen.* 13th, Knighton. *Elliott.* Aug. 24, singing, Dowles. *Pitt.* May 8th, building, Bridgnorth.

P. sibilatrix (Wood Wren). *Elliott.* May 3, Dowles. *Potts.* 8th, Ironbridge. *Forrest.* 9th Shrewsbury. *Lang.* April 27, Ludlow. *Thomas.* May 4, two Holywell.; numerous this year: one singing as late as July 17th and 20th. *Owen.* May 5th, Knighton. *Thomas.* May 29, numerous, Llandinam.

Acrocephalus phragmitis (Sedge Warbler). *Lang.* May 6th, Ludlow. *Thomas.* May 5th, three, Holywell. *Cummings.* June 6, one on precipitous cliff side below Pen-maen, east of Red Wharf Bay, Anglesey. *Huxley.* Very numerous this year, Shelton, Shrewsbury.

Locustella nœvia (Grasshopper Warbler). *Elliott.* May 5, Dowles. July 16, singing. *Thomas.* May 14, Holywell: one singing, July 19th.

Accentor modularis (Hedge Sparrow). *Bowcock.* April 2; nest, two eggs, Wem.

Parus major (Great Tit). *Forrest.* June 8; nest, ten young, in pump in my garden, Bayston Hill.

Acredula caudata (Long-tailed Tit). *Elliott.* Feb. 25. Pair, Dowles; first since severe frost of early 1917. *Thomas.* May 29, nest, nine eggs, Llandinam; none Holywell since 1917.

Certhia familiaris (Tree Creeper). *Thomas.* Nearly exterminated by frost, 1917; only one pair, Holywell. March 22, male, singing nearly quarter hour.

Cinclus aquaticus (Dipper). *Mountford.* April 15, nest, one egg, Churchstoke.

Sitta cæsia (Nuthatch). *Elliot.* March 15. Pair, Dowles; calling, July 21. *Cummings.* August: Several again noted Glynllifon Park, Carnarvonshire. *Thomas.* May 29, two, Llandinam.

Motacilla rail (Ray's Wagtail). *Owen.* April 27, Knighton. *Cummings.* Aug. 18, *et seq*, two birds of the year, Morfa Dinlle, Carnarvonshire. *Elliott.* Sept. 1, Dowles.

Anthus trivialis (Tree Pipit). *Potts.* April 17, Madeley Wood. *Elliott.* 18th, Dowles. *Forrest.* May 10, Shrewsbury. *Brown.* Scarce, Bucknell district. *Thomas.* April 25th, Holywell; numerous this year. *Owen.* 23rd, Knighton; much below average number. *Thomas.* Numerous, Llandinam.

A. pratensis (Meadow Pipit). *Elliott.* March 23. Three, by River, Dowles. *Pitt.* 24th, a dozen in meadow, Albynes. Sept. 24th, large number at Dudmaston.

Lanius collurio (Red-backed Shrike). *Elliott.* May 5. Dowles. *Brown.* None this year, Bedstone. *Lang.* June 30, newly fledged young, *Thomas.* May 16, Holywell. June 23, feeding young out of nest *Cummings.* June 17, female, below Mynydd Llwydiarth, Anglesey *Thomas.* May 29, four males, Llandinam. *D. A. Jones.* August, Larder on thorns at Harlech contained impaled Bumble-bees and Voles.

Muscicapa grisola (Spotted Flycatcher). *Elliott.* May, 9, Dowles, *Potts.* 4th, Benthall. *Thomas.* May 16, many Holywell. *Owen.* 11th, Knighton. *Pitt.* 15th, Albynes, two.

M. atricapilla (Pied Flycatcher). *Owen.* May 4, Knighton. *Thomas.* May 29, Llandinam.

Hirundo rustica (Swallow). *Horton.* April 9, Wenlock. *Forrest.* 14th, Bomere and Shelton; 19th, one at Bayston Hill. *Elliott.* 15th, Dowles. *Potts.* May 1st, about 100, Coalport. *Bowcock.* April 12, one; four on 14th, Wem. *Woodhouse.* May 3rd, Corvedale. very numerous by 16th. *Lang.* April 25th, Ludlow. *Mountford* April 13, three, Churchstoke; numbers quite up to average and greater than usual when assembling for departure. *Thomas.* 25th, Holywell. *Owen.* 26th, Knighton; Aug. 3rd, nest, three eggs. *Cummings.* June 10th, Red Wharf Bay, Anglesey; nest built between two branches forming part of flat roof of small shed. *Fulcher.* August, white ones seen at Cross Houses and Atcham. *Forrest.* The bulk of the Swallows and House Martins left before Sept. 30th. One at Shrewsbury, Oct. 9, and about 100 at Dowles. (*Elliott,*) on 10th. *Pitt.* April 22—Sept. 30, Bridgnorth; bulk left end of August.

Chelidon urbica (House Martin). *Forrest.* April 18, four, Atcham, 27th, two, Rowton *Potts.* May 3rd, Benthall. *Forrest*; increase on 8th, full numbers on 15th, when some were building. *Woodhouse.* April 28th, Corvedale. *Lang.* May 4th, Ludlow. *Mountford:* May 1, Churchstoke. *Thomas.* Holywell, 3rd, hundreds, all gone by 4th; one on 10th, two 23rd, after that usual large numbers. *Owen.* April 29, Knighton. *Pitt.* 26th, three going N.E., Bridgnorth. July 30th, a great gathering, numbering several hundreds.

Cotile riparia (Sand Martin). *Potts.* March 27, one, Coalport. *Elliott.* April 15, about 40, Dowles. *Lang.* 27th, Ludlow. *Elliott.* A few up to Sept. 24. *Pitt.* April 26, Quatford.

Fringilla cœlebs (Chaffinch). *Forrest.* Feb. 23-26 in song, weather very mild. *Elliott.* April 29, two nests ready for lining, Dowles.

F. montifringilla (Brambling). *Elliott.* Oct. 20, Dowles. *Pitt.* Jan. 25, fifty to sixty on bushes, roadside, near Bridgnorth.

Acanthis rufescens (Lesser Redpoll). *Lang.* Oct. 30, flock of seventy, in firs, Ludlow. *Cummings.* June, several pairs in Red Wharf Bay district, Anglesey. *Forrest.* Aug. 8, young one found dead Bayston Hill. *Elliott.* April 28, fifteen, Dowles.

Carduelis elegans (Goldfinch). *Lang.* Nov. 2, on, thistles, Ludlow. *Pitt.* Jan. 17, flock of twelve, Albynes; uncommon lately.

Emberiza cirlus (Cirl Bunting). *Elliott.* April 29, Dowles. *Thomas.* None this year, Holywell.

Plectrophenax nivalis (Snow Bunting). *F. L. Reading.* One, Great Orme's Head, Llandudno.

Sturnus vulgaris (Starling). *Brown.* Enormous flocks in winter roost in the old Duck Decoy at Heath House near Bucknell.

Corvus frugilegus (Rook). *Woodhouse.* March 14, building, Corvedale.

C. Corax (Raven), *Forrest.* May 2, nest, with four well-fledged young, in old Quarry, on the Longmygd, near Church Stretton, the identical spot where the last Shropshire nest was recorded 42 years ago. *Cummings.* Aug. 20, one, Llandwrog, Carnarvonshire.

Pica caudata (Magpie). *Pitt.* March 30, nest ready for eggs.

Garrulus glandarius (Jay). *Pitt.* Both Jay and Magpie, plentiful in district between the Severn and Brown Clee.

Cypselus apus (Swift). *Elliott.* May 3, one, Dowles. *Horton.* 4th, Wenlock, and (*Potts,*) Benthall. *Forrest.* None at Shrewsbury till 11th, when a few came: increase on 15th and full numbers 16th—full week behind usual time. All left district 8–9 Aug. *Bowcock.* May 3, Wem. *Woodhouse.* 16th, Corvedale. *Lang.* 1st, Ludlow. *Mountford.* April 28, Churchstoke. *Thomas.* Holywell, all left night of August 10th. *Owen.* May 5—Aug. 9, Knighton; two Aug. 12. *Cummings.* Sept. 16, one. Llanwrog, Carnarvonshire—late laggard. *Pitt.* May 4th, Bridgnorth.

Caprimulgus europæus (Nightjar). *Elliott.* May 9—Sept. 21, Dowles. *Owen.* 27th, Knighton; July 23, two eggs, late date. *Cummings.* Aug. 1. Young, a week old, on sand hills, Morfa Dinlle, Carnarvonshire; fourth year in succession on same spot and date.

Iynx torquilla (Wryneck). *Elliott.* April 27, Dowles. *Potts.* May 9, Jackfield. *T. E. Pickering.* July 21, one caught in chimney of house on Kingsland, Shrewsbury: rare here.

Dendrocopus major (Great Spotted Woodpecker). *Miss L. Jebb.* Sept. 14, Lee, Ellesmere. *Pitt.* March 20. Watched pair courting: noisy—the wood resounded with their cries and repeated drumming: although wood large, they kept to one area about 200 yards across.

D. minor (Lesser Spotted Woodpecker). *Elliott.* March 1. Call-rattle, Dowles.

Alcedo ispida (Kingfisher). *Bowcock.* April 29, two eggs, Wem.

Cuculus canorus (Cuckoo). *Elliott.* April 25, Dowles. *Potts.* 27th, Benthall, and (*Forrest*), Bayston Hill. *Horton.* 27th, Wenlock: several on May 1st, *Bowcock.* April 26, Wem. *Woodhouse,* 27th, Corvedale. *Lang.* 22nd, Ludlow. June 5th, young in hedge-sparrow's nest: July 15th, young, fed by Grey Wagtails;

Aug. 12th, fed by Meadow Pipits—a late date. *Mountford.* April 15th, Churchstoke. *Thomas.* 26th, Holywell: fully feathered young in Hedge-Sparrow's nest, July 18. *Owen.* April 12, Knighton—very early date. *Forrest.* Calling regularly up to June 21st, and at Dowles (*Elliott*) till 29th, and at Boreatton (*Sankey*) on July 1st. *Pitt.* April 26, one, Dudmaston.

Syrnium aluco (Brown Owl). *Woodhouse.* April 8, sitting on three eggs in old Jackdaw's nest, tower of Tugford Church. Big increase in both Barn and Brown Owls, Corvedale. Nov. 2, saw two old and three young sitting on telegraph wires near Ludlow. *Brown.* Increase noted also in Bucknell district, and (*Lang,*) Ludlow. *Thomas.* April 4, nest, two eggs only, slightly incubated Holywell.

Strix flammea (Barn Owl). See above. *Lang.* Oct. 2, one hunting Ludlow.

Asio accipitrinus (Short-eared Owl). *Huxley.* Oct. 16, one shot near Shrewsbury.

Athene noctua (Little Owl). *Owen.* April 28, nest, five eggs, Knighton, Radnorshire; bird sat very close: later another nest with young, *Huxley.* Nov. 10, two shot—right and left—Attingham. *Elliott.* Nov. 19, Hagley, perched on post 1 p.m. First record for Midlands. 24th another Wribbenhall, near Bewdley. *Pitt.* Sept. 29th, one seen Morville.

Buteo vulgaris (Buzzard). *Lang.* Oct. 20, one pounced twice at a Stoat, Ludlow. *Owen.* May 5, nest, four eggs, Knighton—three is usual, clutch. *Cummings.* Aug. 26, one, Glynllifan Park, Carnarvonshire. *Thomas.* May 29, pair, Llandinam.

Accipiter nisus (Sparrow Hawk). *Forrest.* Feb. 28, killed by dashing against window during snowstorm, Bayston Hill. *Lang.* Increasing, Ludlow district.

Falco peregrinus (Peregrine Falcon), *Lang.* Jan. 18, one shot, Leintwardine.

Phalacrocorax carbo (Cormorant). *Lang.* July 26, one shot on Teme, Ludlow, *Tower.* Unusually large numbers visited Ellesmere towards end of year—sometimes as many as twenty sitting on the water or on boat-mooring posts. *Owen.* Sept. 13—18, two, Knighton—rare there. *Huxley.* Nov. 10, immature, shot Atcham.

Sula bassana (Gannet). *Cummings.* June 15, six, various ages, fishing Red Wharf Bay, Anglesey

Botaurus stellaris (Bittern). *Forrest.* Feb. 20, one shot, Wigmore, near Westbury Had been seen thereabouts repeatedly from October, 1917. *F. H. Mills.* January, three in Anglesey.

Anser .. ..(Wild Goose). *Lang.* Seen, crossing over Ludlow. *Potts.* A wild goose shot at Christmas, near Wenlock.

Tadorna cornuta (Sheldrake). *Huxley.* Aug. 24, immature, shot Attingham.

Anas boscas (Mallard). *Thomas.* May 7, Barmouth; nest, 8 fresh eggs, though other ducks were leading young. *Huxley.* Sept. 15, Albmo, Halston.

Mareca penelope (Wigeon). *Brown.* Pair shot, Heath House, near Bedstone.

Clangula glaucion (Goldeneye). *Sergeantson.* Feb. 14, male, shot, Acton Burnell.

Fuligula cristata (Tufted Duck). *Sergeantson.* Feb. 14, female, shot Acton Burnell. *Elliott.* Nov. 16, Dowles.

Mergus merganser (Goosander). *Forrest.* Jan. 2—8, male and two females on Severn, at Atcham: later they spent three days on Betton Pool.

Columba palumbus (Wood Pigeon). *Woodhouse.* Jan. 25, love note, Corvedale.

Turtur communis (Turtle Dove). *Elliott.* May 5, Dowles. *Potts.* 9th Madeley. *Forrest.* 19th, many about Rowton, etc. *Owen.* May 10, Knighton. *Cummings.* Sept. 9, one, Ty Mawr, Llandwrog, Carnarvonshire—rare here.

Coturnix coturnix (Quail). *Pitt.* Sept. 24, two bevies—20 to 30 in each—seen Dudmaston; several afterwards shot.

Crex pratensis (Cornerake). *Forrest.* May 6; several 15th, Bayston Hill. *Potts.* 11th, Benthall. *Bowcock.* April 11, heard, Wem, an extraordinarily early date. *Woodhouse.* Very few in Corvedale, or (*Brown*), Bucknell district. *Lang.* May 2, Ludlow. *Mountford.* 3rd, Churchstoke. *Thomas.* May 29, three Llandinam. *Elliott.* July 13 and 23, singing, Dowles. *Pitt.* May 4, Bridgnorth.

Porzana maruetta (Spotted Crake). *Huxley.* Sept. 16, Bilston.

Gallinula chloropus (Moorhen). *Bowcock.* April 7, ten eggs, Wem.

Charadrius pluvialis (Peewit). *Woodhouse.* Feb. 13. returned Corvedale: very few this year. *Mountford.* Feb. 24, nest, two eggs, Churchstoke—very early date. *Forrest.* July 30, flock about 250, Bayston Hill; early for flocking.

Hæmatopus ostralegus (Oystercatcher). *Cummings.* June 13, nest, three eggs, close to cliff walk, Moelfre, Anglesey, 100 feet above sea level.

Scolopax rusticula (Woodcock). *Elliott.* March 11. Several "Roading," Dowles. Dec. 26, about twenty seen and six shot.

Totanus hypoleucus (Sandpiper). *Elliott.* April 6 (and May 2), Dowles. *Walker.* 21st, several on Severn and brooks round Shrewsbury. *Lang.* May 1st. Ludlow. *Owen.* April 18, Knighton; nest, four eggs, July 6 and Sept. 17: singing Sept. 18 and 28. *Thomas.* May 29, several Llandinam; nest, two eggs, on railway embankment.

T. ochropus (Green Sandpiper). *Elliott.* March 26, one, Dowles.

T. calidris (Redshank). *Owen.* July 29, two, Knighton. *Thomas.* June 4, two pairs Point of Air.

Calidris arenaria (Sanderling). *Cummings.* Aug. 10, seven, one in breeding plumage, Carnarvon Bay.

Numenius arquata (Curlew). *Lang.* June 5, nest, three eggs, Ludlow.

N. phæopus (Whimbrel). *Cummings.* June. Witnessed extraordinary flight of one Foryd Bay: it stooped like a Peregrine, the noise made by its wings being very perceptible at some distance.

Sterna minuta (Lesser Tern). *Thomas.* At Point of Air, Holywell, about 25 pairs June 3; three nests with eggs; July 1, 40 to 50 pairs, several nests with eggs—no young.

S. fluviatilis (Common Tern). *Forrest.* Oct. 4—5. One on River, Shrewsbury. *Hodges.* One at Ellesmere in Autumn. *Thomas.* July 1, two nests with one egg each, Point of Air.

S. cantiaca (Sandwich Tern). *Cummings.* June 4, two Benllech Sands, Anglesey; Aug. 3, about 40, Belan Fort, Menai Straits.

Hydrochelidon niger (Black Tern). *Hodges.* One at Ellesmere in Autumn.

Larus ridibundus (Black-headed Gull). *Huxley.* Jan. 12. Adult male shot out of nine at Gravel Hill, Shrewsbury. *Forrest.* April 21, party of twelve stayed two hours at Berrington. May 2, party of ten passed over Stretton, going north. *Brown.* Many on streams, Bucknell district.

L. argentatus (Herring Gull). *Mountford.* Aug. 16, 24 flying over Churchstoke, probably this species. *Forrest.* July 21, two flying S.W., Middletown. *Pitt.* Large Gulls seen Bridgnorth, flying E. April 13; N.E., Aug. 2; N.W., 5th; W., Sept. 8; and Dec. 20, one going W.

Colymbus glacialis (Great Northern Diver). *Huxley.* Jan. 12. Immature, shot Cymmeran, Anglesey.

Podicipes cristatus (Great Crested Grebe). *Sergeantson.* Mar. 22. Three pairs returned to Acton Burnell Pool. Three pairs nested there 1917, and at least one brood was reared.

AMPHIBIANS AND REPTILES.

Rana temporaria (Frog). *Elliott.* Feb. 7. Croaking, Dowles.

Bufo vulgaris (Toad). *Elliott.* May 6. Remains of about 100 round margin of pond at Dowles, the prey probably of Rats or Water Voles; the heads and legs not eaten in any instance.

Vipera berus (Viper). *Thomas.* June 12, very large one, 28 inches, killed in Ysceifiog Parish, near Holywell.

FISHES.

Labrus mixtus (Green Wrasse)
Motella mustela (Five-bearded Rockling.) } *Forrest*, Sept. 7, caught Llwyngwril.

Trygon pastinaca (Sting Bay). *Forrest.* Taken from time to time in Barmouth Harbour; three in 1918.

Hippocampus antiquorum (Sea Horse). *Forrest.* David Jones, who has over forty years experience as a fisherman at Barmouth, tells me that this pretty little creature is not at all uncommon in the harbour, where it is found holding on to the larger sea weeds.

ENTOMOLOGY.

COLEOPTERA AND DIPTERA.

Lists of the above are in preparation, but it will take some time to work out the species. Enough has been noticed, however, to ensure the fact that the County of Salop is as rich in these orders—or even perhaps richer—than other contiguous Midland Counties, which have been well worked by experts. while Shropshire has been unaccountably neglected in this particular.

Bombus lapidarius. (The Stone Humble Bee.) Nest in stable cupboard at Cyngfield: nest, a dome of Hay and bits of paper, which littered the ground. *Forrest.*

Bombus terrestris. Mr. H. F. Harris destroyed wasps' nest in Mr. Naunton's garden. The entrance in hedge-bank was common to a tunnel to left leading to wasps' nest, and a tunnel to right leading to nest of humble bee. *Forrest.*

Lampyrus noctiluca. (Glow worm.) Wingless, larva-like female. shining Sept. 14 and Oct. 27. Dowles Farm. *Elliott.*

LEPIDOPTERA.

BUTTERFLIES.

Butterflies generally seemed more plentiful than for a long time past. A great many hibernated specimens were observed during March.

Pararge Egeria. (Speckled Wood). Seemed to forsake the woods and to flitter along the roadsides. Madeley. *Potts.*

Argynnis Selene (Small Pearl-bordered Fritillary). ——

„ **Euphrosyne** (Pearl-bodied Fritillary). ——

C. Argiolus (Holly Blue). More than usually common in both broods among holly. *Melville. Ingrams.*

V. C. Album (Comma). *Melville. Ingrams.*

V Atalanta (Red Admiral). Numerous. *Ingrams.*

V. Io. (Peacock). Several. *Ingrams.*

V. Urticæ (Small Tortoiseshell). Numerous. Wenlock. In early part of the year. *Florian.*

Over 100 butterflies at Dowles Manor, End of March, including Peacock, Tortoiseshell and Sulphur. *Elliott.*

Over a dozen Peacock hibernated in Old Parr's Cottage. *Forrest.*

MOTHS.

Smerinthus populi (Poplar Hawk). Wroxeter. *Forrest.*

Hemaris tityus (narrow bordered Bee Hawk), plentiful Rhodes Farm (Astley Abbotts Parish). *Pitt.*

Notodontidae Dicranura Vinula (Puss Moth). Kingsland. *Ingrams.*

„ **Phalera, bucephala** (Buff Tip), numerous. Kingsland. *Ingrams.*

Limantriidae Dasychira pudibunda (Pale Tussock). Kingsland, *Ingrams.*

Lasiocampidæ, Lasiocampa Quercus (Oak Eggar). Meole. *Melvill.*

Pœcilocampa populi (December Moth). Ironbridge. *Potts.*

Arctia caja (Tiger Moth), light variety Meole. *Melvill.*

Acronycta Alni (Alder) larva. Kingsland, *Ingrams.*

Diloba, Cœruleocephala (Figure of Eight), larvae; abundant on young apple trees. *Potts.*

Anarta myrtilli (Beautiful Yellow Underwing), near Bomere. *Melvill.*

Plusia moneta (Golden Plusia), seems now firmly established at Broseley. *Allen. Potts.*

Abraxas sylvata (Clouded Magpie), extremely plentiful, Stoke Wood, Craven Arms, July. *Melvill.*

Zygæna loniceræ (Narrow Five Spot Burnet) ——

„ filipendulæ, out in thousands, Benthall Edge. *Potts*

Pterophorus (Platyphilio) Ochrodacylus (Plume Moth), Meole *Melvill.*

METEOROLOGY.

Reports of barometer movements will be found in the notes. The letter *C* signifies cyclonic conditions, *i.e.*, when the readings are below about 29,600; Anti-cyclonic by the letter *A.*, when the mercury gives higher readings. *M.O.*=Meteorological Office. Numbers in parentheses refer to Observing Stations.

JANUARY—

The month began under winterly conditions but from about the 17th to the end it was much milder. There were snow falls on 12th, 15th, 17th 17th and 18th; greatest depth about 2″.

A, 1st—4th; C, 4—23rd; A, 23—31.

FEBRUARY—

This was a mild dry month, everything very forward; the thermometer was rarely down to 32°; from the 27th to the end lower temperature with snow. Winds were chiefly S.W., or W., (25). There was lightning on 6th and 8th; a gale on the last mentioned day. The open weather came as a boon to farmers as it helped in saving fodder.

1—3 A; 4—10 C; 11—17 A; 18—27 A; 27—28 C.

MARCH—

The early part till the 8th, inclement, the rest of the month mild (22); From Feb. 19th to March 27th, only two days with rain. From all over the country and from Ireland notices of extreme mildness were received (27); Damsons and plums in bloom on 31st.

1—4 A; 4—9 C; 9—10 A; 11—12 C; 12—14 A; 15—19 C; 20—26 A; 26—end C.

APRIL—

A cold ungenial month with rain and snow winds chiefly from eastward directions (27) at or below 32 on 8 days. (25) heavy snow on 20th and 21st. Swallows appeared on 14th. Cuckoo 24th and 25th. Corncrake 29th.

1—13 C; 14—18 A; 19—25 C; 26—30 A.

MAY—

This was generally a warm month and favourable to agricultural operations but the fearful storms of Hail entirely ruined the prospects of fruit. (29) Most violent thunderstorm on record; trees struck, houses flooded, large hailstones completely ruining stone point. (39) Fearful thunderstorm on 22nd; Potatoes washed out of the ground. At (14) the hail was the size of cherries. On 22nd temperature rose to 80. 3°.

1st—2nd, A; 3rd—17th, C; 18—22 A; 22nd—23rd, C; 24th—31st, A.

JUNE—

The first few days warm, then cold till end of the month. (1) Very dry; good early hay harvest. (12) Rain under average. (14) Heaviest rain with thunder and lightning on 6th.

1st—13 A; 14th—22 C; 23—26 A; 27—28 C; 28—30 A.

JULY—

Most unsettled weather prevailed hindering hay harvest, the rain however saved potatoes and grain crops. Much thunder and lightning during the month from (27) these were reported on 9th, 10th, 11th, 14th, 16th, 20th, 23rd, 26th; from (25) on 10th, 14th, 16th, 17th 23rd; from (14) on 10th, 16th, 20th, 26th.

1st—7th, A; 8th—27th, C; 28th—30th, A; 31st, C.

AUGUST—

(25) A dry month. Wind chiefly N.W.; thunder on 1st very light rainfall. Harvest favoured by weather. This fine spell broke however about 24th and continued with rain every day (17) till 10th October,—42 days consecutive rain.

1—8 C; 9—15 A; 16—18 C; 18—21 A; 21—22 C.—23—24 A: 24—28 C; 28—30 A; 31 C.

SEPTEMBER—

Generally a wet cold month. Harvest lay out in the fields amid most disappointing weather. (27) Wettest September for 61 years. Wheat, barley and oats with sprouts inches long in the fields.

(1) Corn exceptionally good but much damaged.

1st—31 C.!!

OCTOBER—

(27) An unusually dry month. (11) Temperature over average, rainfall under. (25) cold; a gale on 6th, with lightning; winds chiefly W. and N.W. (19) From 21st to end weather pleasant.

1—2 A; 3—19 C; 20—24 A; 24—27 C; 27—29 A; 29—31 C.

NOVEMBER—

Mild for greater portion; cold snap (27) on 6th and 7th, also 13th and 15th, when theromometer went down to 32° and glass thermometers to 20° (14) fogs 13th, 20th, 22nd, 24th, 27th; during the cold period of 13th the wind blew from easterly directions. (12) No snow.

1—8 C; 8—21 A; 21—29 C; 30 A.

DECEMBER—

(12) Rain over average; temperature above, little snow. A slight fall on 25th, (27) a "green" Christmas. (25) Northern lights very beautiful on 25th.

1—13 C; 14—15 A; 16—25 C; 26 A; 26—31 C.

NOTES ON THE WHOLE YEAR.

Mild ; no snow or severe frosts, but a good deal of cold weather in latter half of year. (38) Reports thunder on 12 days ; snow on 10 days. (22) Feb. 19th—March 27th, only 2 rainy days ; March, April, May and June, only 27 days rain. From Feb. 19th to July 8th = 140 days, only 28 days with rain. September bar 1st two days very wet. 1st 19 days of Oct. all wet ; 44 out of 47 wet. Rainfall for the year just average.

FARM CROPS

Early Hay harvest especially, good late Hay much spoiled by July's rain ; during this month the weather most disappointing. A good cerial crop all round but much laid by rain in Septembers' atrocious weather. Field potatoes very good ; (33) 1 cwt seed produced 4 cwt of K. Edward.(?) potatoes. Root crops generally good.

GARDEN CROPS.

Small bush fruit all good. Strawberries only fair. Stone fruit, Apples and Pears damaged by May 22nd's hail and the late frosts these with stone fruits, an utter failure. (32) Peaches and apricots (outside) good. (31) Late peas and beans not doing much. Onions good but kept badly, perhaps owing to September rains. (25) Vegetables very good.

EXTREMES FOR THE YEAR 1918.

		inches
Average rainfall for Shropshire	... ...	27·73
Wettest month „ „	September ...	6·14
Driest „ „ „	June	0·97
Station with heaviest rainfall.	Bettws-y-Crwyn...	46·23
„ „ lightest „	Roden	25·01
Greatest number of rainy days.	Bishop's Castle ...	231
Least „ „	Roden	132
Greatest number „ for 1 month, September, Oswestry and Netley	... ...	30
Least „ „	November, Roden ...	5
Month with greatest number of rainy days. Average for Shropshire,	September ...	26·7
„ „ least number of rainy days. Average for Shropshire,	March ...	9·8
TEMPERATURE—		
Highest average. May.	August	82°
Lowest „	January	16°
Highest temperature	Church Stretton (May) ...	90°
Lowest „	Bridgnorth (January) ...	8°
Highest Barometer reading,	Wistanstow (Feb.)	30·195
Lowest „ „ „	(Dec.)	28·075

TABLE No. 1.

NAMES OF OBSERVERS AND STATIONS.

NO.	ALTITUDE.	STATION.	OBSERVER.	LATITUDE. ° ′ ″	LONGITUDE. ° ′ ″
(1)	1300	Bettws-y-Crwyn ...	Rev. I. Wilson ...	52 24 20	3 6 10
(2)	900	Burwarton ...	Hon. M. Hamilton, per Mr. W. Lowe ...	52 27 30	2 34 0
(3)	720	Bishop's Castle ...	E. Griffiths, Esq. ...	52 30 0	3 0 0
(4)	700	Church Stretton ...	H. Constantine, Esq. ...	52 32 10	2 47 50
(5)	700	Preen Manor ...	Per Mr. Jno. Hopkins ...	52 34 30	2 40 20
(6)	698	Mount Reservoir, Oswestry	G. Wm. Lacey, Esq., C.E. ...	52 48 0	3 3 0
(7)	650	Church Stretton ...	Mr. Geo. Dunn ...	52 32 10	2 48 10
(8)	600	More ...	Rev. Ridley Relton ...	52 30 50	2 58 10
(9)	596	Bishop's Castle ...	Rev. C. E. Warner ...	52 29 20	2 59 50
(10)	582	Sewage Works, Church Stretton ...	Mr. E. J. Marsh, ...	52 30 49	2 49 33
(11)	509	Bitterley ...	Rev. J. R. Burton ...	52 23 40	2 38 0
(12)	501	Broseley ...	The Lord Forester, per Mr. J. Penson...	52 35 15	2 29 30
(13)	490	Wellington (Reservoir) ...	Mr. Geo. Riley, ...	52 42 0	2 31 0
(14)	482	Wistanstow ...	Rev. W. M. D. La Touche ...	52 27 52	2 50 4
(15)	460	Bridgnorth (Coton) ...	E. M. Wakeman, Esq. ...	52 28 20	2 20 0

TABLE No. 1 (continued).

NO.	ALTITUDE.	STATION.	OBSERVER.	LATITUDE. ° ′ ″	LONGITUDE. ″ ′ ″
(16)	450	Oswestry (Council School)...	Mr. E. Compton ...	52 48 0	3 3 0
(17)	406	Newington Ho. Craven Arms ...	R. E. Sergeantson, Esq. ...	52 25 0	2 50 0
(18)	351	Knighton Reservoir, Shrop.	G. R. Jebb, Esq., C.E. ...	52 54 30	2 53 0
(19)	350	Netley Hall, Dorrington ...	Miss J. Hope Edwardes ...	52 34 0	2 46 40
(20)	340	Ellesmere ...	Miss A. M. Ashton ...	52 54 40	2 53 40
(21)	320	Bromfield ...	F. Brayshaw, Esq. ...	52 23 10	2 45 40
(22)	315	Ludlow (Ashford) ...	W. Downes Hall, Esq. ...	52 20 0	2 42 45
(23)	308	Ellesmere ...	G. R. Jebb, Esq., C.E. ...	52 54 30	2 53 0
(24)	300	Bromfield (Oakly) ...	The Earl of Plymouth, per Mr. Francis	52 22 50	2 45 20
(25)	290	Bridgnorth (Cantreyn) ...	Per Mr. William Bayliss ...	52 23 30	2 25 40
(26)	280	Newport ...	Col. R. Leeke ...	52 46 40	2 23 30
(27)	279	Shifnal (The Schools) ...	Mr. F. W. Haswell ...	53 40 11	2 31 30
(28)	271	Whitchurch ...	Mr. M. W. Sowden, ...	52 56 30	2 45 0
(29)	250	Hatton Grange ...	Mr. Geo. Risebrow ...	52 37 55	2 20 50
(30)	250	Shrewsbury (Highfield) ...	T. M. Howells, Esq. ...	52 42 20	2 44 20
(31)	250	Chetwynd ...	Mr. N. Sherwood ...	52 47 20	2 23 20

TABLE No. 1 (continued).

NO.	ALTITUDE.	STATION.	OBSERVER.	LATITUDE ° ′ ″	LONGITUDE. ° ′ ″
(32)	240	Chetwynd Park ...	Mrs. Burton Burrough ...	52 47 20	2 23 20
(33)	238	Fitz Rectory ...	Rev. W. Brewster ...	52 45 20	2 49 10
(34)	220	Newport Agricultural Coll....	P. Headworth Foulkes, Esq., B.Sc. ...	52 46 40	2 23 30
(35)	208	Roden ...	J. W. Nowell, Esq. ...	52 44 30	2 37 40
(36)	200	Shrewsbury (Coton Hill) ...	Dr. M. Gepp ...	52 42 40	2 45 55
(37)	171	Shrewsbury (Abbey House)	Miss F. H. Rouse Boughton ...	52 42 18	2 44 30
(38)	169	Shrewsbury (Underdale Road) ...	Robert C. Sikes, Esq. ...	52 42 18	2 44 30
(39)	140	Worfield (The Schools) ...	Mr. Frank Turner ...	52 33 20	2 21 10

TABLE No. 2.

MONTHLY RAINFALL RECORD IN INCHES.

		JAN.	FEB.	MAR.	APL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(1)	Bettws-y-Crwyn ...	4·39	3·71	2·07	2·41	3·40	1·17	4·24	2·21	9·52	2·90	3·58	6·63	46·23
(2)	Burwarton ...	1.74	1·41	1·31	2·78	2·19	1·05	2·63	1·89	7·34	1·56	1·90	3·01	28·81
(3)	Bishop's Castle ...	2·79	2·30	1·52	1·77	2·67	0·88	3·19	1·35	5·98	1·72	2·29	3·90	30·36
(4)	Church Stretton ...	2·93	2·41	1.98	2·37	2·55	0·89	3·81	2·42	6·21	1·76	2·27	4·97	34·57
(5)	Preen Manor ...	2·24	2·29	1·41	2·05	3·72	0·89	2·92	1·46	5·51	1·77	1·98	3·87	30·11
(6)	Oswestry ...	3·19	2·32	1·14	1·75	2·47	1·01	4·66	1·55	6·63	2·00	1·62	4·21	32·55
(8)	More	2·81	1·80	1·25	1·84	2·30	0.80	3·44	1·44	6·41	1·30	2·12	3·84	29·35
(9)	Bishop's Castle ...	3·04	2·55	1·68	1·89	2·21	0·98	3·50	1·47	6·41	1·79	1·68	4·09	31·29
(10)	Church Stretton ...	3·21	2·32	2·04	2·35	2·52	0·97	4·33	2·19	6·99	1·92	2·38	4·86	36·08
(11)	Bitterley ...	2·11	1·56	1·75	2·61	2·38	1·28	3·08	1·47	6·07	1.23	1·87	2·89	28·30
(12)	Broseley ...	2·12	1·44	1·41	1·56	2·36	1·35	3·86	1·32	5·44	1·57	2·08	2·87	27·38
(13)	Wrekin Reservoir ...	1·80	0·80	1·30	2·70	2·60	1·00	3·20	0·90	5·85	2·45	2·00	3·00	27·60
(14)	Wistanstow ...	2·69	1·75	1·15	1·60	3·11	1·06	2·63	1·79	5·86	1·15	2·08	2·82	27·69
(15)	Bridgnorth (Coton) ...	2·37	1·31	1·51	2·05	3·44	1·00	2·34	2·44	6·22	1·68	2·00	2·71	29·07
(16)	Craven Arms ...	2·05	1·33	1·11	2·31	2·72	1.08	2·67	1·34	5·57	1.16	1·74	2·66	25.74
(17)	Oswestry ...	3·17	3·16	1·18	1·67	2·32	0·73	4·54	1·72	7·81	1·97	1·31	5·02	34·60

TABLE No. 2—(continued).

		JAN.	FEB.	MAR.	APL.	MAY.	JUUE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(18)	Knighton Shropshire ...	1·74	1·91	1·51	1·78	3·09	1·19	3·40	2·94	5·68	1·66	1·59	4·40	30.89
(19)	Netley Hall ...	2·37	2·36	1·24	2·28	4·13	1·04	3·23	1·09	5·31	1·68	2·05	4·09	30·87
(20)	Ellesmere ...	2·13	1·76	0·86	1·66	2·74	0·55	4·08	1·95	5·51	1·39	1·09	3·10	26·82
(21)	Bromfield ...	2·59	1·74	1·88	1·96	3·14	1·03	3·70	1·43	6·14	1·59	2·07	3·17	30·44
(22)	Ludlow	2·98	1·47	1·88	2·68	3·34	1·01	3·59	1·32	7·17	1·62	2·39	3·55	33·00
(23)	Ellesmere ...	2·27	2·10	0·89	2·08	3·28	0.57	4·73	1·87	5·91	1·78	1·32	4·11	30·91
(24)	Bromfield ...	2·98	1·83	1·40	2·01	3·52	0·86	3·67	1·38	5·22	1·54	2·10	3·36	29·87
(25)	Bridgnorth ...	1·99	1·49	1·59	2·44	3·15	1·13	3·70	1·73	6·05	1·64	1·77	3·03	29·71
(26)	Newport ...	1·97	1·62	1·44	2·46	3·40	1·13	3·01	1·64	5·97	1·63	1·69	3·53	29·49
(27)	Shifnal	1·79	1·48	1·38	2·37	4·41	0·97	3·97	1·44	5·25	1·37	1·64	3·19	29·26
(28)	Whitchurch ...	1·53	2·03	0·83	1·92	2·53	0·91	3·76	2·45	5·40	1·36	0·84	2·58	26·14
(29)	Hatton Grange ...	1·78	1·50	1.41	2·32	3·76	0·93	3·38	1·89	5·18	1·72	1·61	3·59	29 07
(30)	Shrewsbury ...	1·61	1·39	1·22	2·18	3·12	0·84	3·25	1·51	6·16	1 88	1·41	3·57	28·14
(31)	Chetwynd ...	1·72	1·74	1·44	2·10	3·12	1·19	2·88	1·98	6·34	1·50	1·61	3.70	29·32
(32)	Chetwynd ...	1·64	1·71	1·41	2·09	3·03	1·34	2·84	1·91	6·28	1·68	1·51	3·75	29·19
(33)	Fritz	1·80	1·61	1·14	2·17	3·29	1·02	2·71	1·49	7·00	1·50	1·21	3·82	28·76
(34)	Newport ...	1·34	1·16	1·36	1·90	3·21	0·85	3·03	1·53	5·56	1·44	1·44	2·88	25·70

TABLE No. 2—(continued).

		JAN.	FEB.	MAR.	APR.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(35)	Roden	1·53	0·78	0·96	1·48	2·29	0·71	3·57	1·31	6·05	1·48	1 02	3·83	25·01
(36)	Shrewsbury ...	2·04	1·25	1·05	1·76	2·52	0·63	2·91	1·28	5·63	1.23	1·12	3·32	24·74
(37)	Shrewsbury ...	1·97	1·54	1·12	1.19	3·12	0·83	3·26	1·42	6·17	1·66	1·37	3.53	27·18
(38)	Shrewsbury ...	1·85	1·37	1.11	1·91	3·16	0·79	3·21	1·53	6·18	1·55	1·29	3·46	27·41
(39)	Worfield ...	1·88	1·34	1·40	2·25	4·55	1·02	2·94	I·73	5·32	1·52	1·83	2·58	28·36
	Totals ...	86·15	67·64	52·53	78·70	114·86	36·68	129·86	63·78	233·30	62·35	66·87	137·49	1130·01
	Averages ...	2·27	1·78	1·38	2·07	3·02	0·97	3·41	1·68	6·14	1·64	1·76	3·62	**29·73**

TABLE No. 3.

GREATEST RAINFALL IN 24 HOURS, WITH DATES.

	Jan.	Day.	Feb.	Day.	Mar.	Day.	Apl.	Day.	May.	Day.	June.	Day.	July.	Day.	Aug.	Day.	Sept.	Day.	Oct.	Day.	Nov.	Day.	Dec.	Day.
(1) Bettws-y-crwyn	·80	17	1·06	9	·63	31	·49	9	·85	17	·51	9	·89	15	·61	25	1·11	4	·46	4	1·39	1	·78	17
(2) Burwarton ...	·45	16	·44	9	·26	31	·76	26	·56	22	·53	17	·54	26	·58	25	1·16	4	·34	7	·61	2	·46	4
(3) Bishop's Castle	·50	17	·67	9	·47	28	·60	21	·53	3	·20	9	·68	15	·34	27	·82	4	·33	4	·78	1	·53	18
(4) Church Stretton	·48	15	·57	9	·67	31	.87	21	·76	22	·26	18	·73	15	·63	27	·80	29	·31	5	·64	1	·58	18
(5) Preen Manor ...	·50	15	·61	9	·44	28	·48	21	1·65	22	·18	18	·54	11	·37	27	·62	29	·31	5	·60	4	·49	20
(6) Oswestry ...	·65	14	·58	6	·26	30	·31	20&21	·53	21	·30	9	·86	15	·42	25	·94	15	.45	6	·55	4	·90	20
(8) More ...	·43	14	·55	9	·37	28&31	·58	21	·48	3	·22	9	—	—	·41	27	·71	3	·25	4&6	·78	1	·47	18
(9) Bishop's Castle	·47	18	·79	9	·53	28	·52	21	·40	23	·19	18	·68	15	·36	25	·93	4	·32	4	·80	1	·61	18
(10) Church Stretton	·59	15	·47	9	·65	31	·70	21	·76	22	·21	9	·91	15	·63	27	·73	4	·27	6	·59	4	·88	18
(11) Bitterley ...	·55	15	·36	9	·34	30	·89	21	·84	22	·55	6	·89	11	·55	25	·77	29	·15	4	·58	1	·50	4
(12) Broseley ...	·45	18	·38	9	·28	19	·39	16	·90	22	·27	16	·76	26	·36	27	·75	4	·26	6	·60	1	·55	19
(14) Wistanstow ...	·69	15	·44	9	·40	31	·43	21	1·04	17	·45	6	·58	16	.49	27	·71	3	·34	5	·66	1	·44	18
(15) Bridgnorth ...	·72	15	·30	9	·35	28	·75	20	1·36	22	·28	18	·32	17	1·02	25	1·12	18	·28	9	·60	3	·38	4
(16) Craven Arms ...	·47	18	·54	19	·45	29	·73	22	·62	18	·53	8	·59	16	·58	30	1·10	17	·29	6	·68	2	·47	16
(17) Oswestry ...	·83	15	1·04	9	·25	28	·29	21	·67	21	·24	18	·75	16	·44	25	1·08	4	.52	6	·52	4	·84	20
(18) Knighton(Shrop.)	.45	17	·48	9	·48	28	·45	6	1·49	22	·28	16	1·21	9	1·28	2	·93	4	·40	2	·36	28	·78	19
(19) Netley Hall ...	1·50	15	·65	9	·39	28	·50	21	2·58	22	·21	18	·65	15	·30	25	1·01	4	·33	6	·60	4	·48	15
(20) Ellesmere ...	1·55	14	·65	9	·21	28	·33	9	1·30	22	·16	18	·57	15	·58	2	·65	15	·42	6	·40	4	·65	20
(21) Bromfield ...	·51	18	·38	9	·48	28	·42	21	1·03	22	·37	18	·72	10	·35	25	·63	29	·29	6	·76	1	·46	18

TABLE No 3—(continued).

	Jan.	Day.	Feb.	Day.	Mar.	Day.	APl.	Day.	May.	Day.	June.	Day.	July.	Day.	Aug.	Day.	Sept.	Day.	Oct.	Day.	Nov.	Day.	Dec.	Day.
(22) Ludlow ...	·78	15	·35	9	·52	30	·81	16	1·63	22	·48	18	1·00	11	·57	25	·78	4	·33	6	·68	1	·62	6
(23) Ellesmere ...	·48	17	·70	9	·20	30	·35	9	1·43	22	·25	·20	·77	12	·42	2	·90	4	·54	6	·41	4	·91	20
(24) Bromfield ...	·76	15	40	9	·40	28	·47	16	1·38	22	·37	18	·73	10	·40	23	·70	29	·30	6	·68	1	·48	4
(25) Bridgnorth ...	·56	15	40	9	·31	31	·62	20	1·53	22	·22	18	1·06	26	·40	25	·80	4	·23	9	·45	4	·46	4
(26) Newport ...	·67	15	·44	9	.39	28	.46	6	1·90	22	·21	9&16	·43	20	·49	2	·98	4	·24	9	·36	1	·40	20
(27) Shifnal ...	·49	15	·42	9	·34	28	·44	20	2·65	22	·15	6&16	·56	9	·40	25	·84	4	·25	9	·47	4	·45	20
(28) Whitchurch ...	·50	17	·40	21	·21	30	·38	7	·60	20	·25	16	·51	15	·65	2	·80	4	·11	11	·20	17	·64	20
(30) Shrewsbury ...	·55	17	·44	9	·39	28	·45	21	1·26	21	·16	18	·52	15	·44	2	1·30	4	·41	6	·42	1	·63	20
(31) Chetwynd ...	·47	15	·47	9	·43	28	·41	19	1·72	22	·21	16	·43	15	·51	2	·92	4	·28	9	·32	2	·49	19
(32) Chetwynd ...	·42	15	·47	9	·43	28	·50	20	1.64	22	·25	16	·42	10 &15	·49	2	·84	4	·27	9	·31	1	·50	19
(33) Fitz ...	·36	15	·55	9	·29	28	·35	20	1·67	22	·29	6	·58	15	·27	27	1·38	4	·42	6	·37	1	·59	20
(34) Newport* ...	·38	15	·35	9	·36	28	·40	6	2·00	22	·17	16	·55	9	·43	2	1·06	4	·25	6	·37	1	·42	20
(35) Roden ...	·59	15	·25	8	·37	28	·40	20	·75	22	·15	16 & 18	·68	15	·42	26	1·15	4	·40	6	·35	28	·70	20
(36) Shrewsbury ...	·80	15	·39	9	·23	30	·35	20	1·04	22	·13	18	·45	15	·46	2	1·48	4	·31	6	·36	1	·63	20
(37) Shrewsbury ...	·58	15	·52	9	·42	28	·38	20	1·15	22	·16	6	·45	15	·38	2	1·30	4	.43	6	·41	1	·66	20
(38) Shrewsbury ...	·60	15	·47	9	·25	29	·40	20	1·52	22	·17	6	·45	15	·55	2	1·28	4	·41	6	·41	1	·69	20
(39) Worfield ...	·49	17	·50	9	·28	28	·60	21	2·54	22	·15	18	.62	25	·68	26	·65	29	·30	9	·45	1	·38	4

TABLE No .4.

RAINY DAYS.

A Rainy Day means a day on which at least .01 of rain fell.

	JAN.	FEB.	MaR.	APL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(1) Bettws-y-crwyn	19	19	11	15	11	8	18	16	28	23	18	29	215
(2) Burwarton ...	15	15	11	12	10	7	14	10	27	19	11	18	169
(3) Bishop's Castle	16	17	11	11	12	10	20	14	27	17	17	23	195
(4) Church Stretton	17	18	9	14	13	10	19	14	26	20	17	26	203
(5) Preen Manor ...	15	17	10	10	11	11	16	12	25	17	13	20	177
(6) Oswestry ...	21	16	9	11	14	12	17	13	29	19	15	28	204
(8) More ...	17	16	9	11	12	13	18	14	28	17	18	25	208
(9) Bishop's Castle	20	20	14	16	13	13	20	16	29	25	19	26	231
(10) Church Stretton	19	20	10	11	11	9	18	14	29	24	24	30	219
(11) Bitterley ...	16	19	13	14	11	10	19	12	29	20	16	23	202
(12) Broseley ...	15	15	10	13	10	10	19	11	24	19	15	19	180
(14) Wistanstow ...	17	19	10	13	10	8	16	11	27	15	13	22	181
(15) Bridgnorth ...	11	18	9	10	11	12	16	10	25	17	12	22	173
(16) Craven Arms ...	14	13	7	12	10	8	17	12	24	17	13	22	169
(17) Oswestry ...	19	17	10	16	12	10	20	13	30	20	14	29	210

TABLE No. 4—(continued).

	JAN.	FEB.	MAR.	APL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(18) Knighton (Salop)	16	16	8	10	9	10	18	13	28	16	11	24	179
(19) Netley Hall ...	18	19	13	15	13	15	20	12	30	22	17	25	219
(20) Ellesmere ...	17	13	8	11	8	8	17	10	26	19	14	16	167
(21) Bromfield ...	15	18	14	13	10	11	17	13	27	19	17	24	198
(22) Ludlow ...	10	16	6	7	8	6	17	11	28	20	12	19	160
(23) Ellesmere ...	16	16	7	13	10	6	17	13	27	16	13	21	180
(24) Bromfield ...	13	18	10	12	10	6	17	11	25	17	12	25	176
(25) Bridgnorth ...	9	17	8	12	11	11	17	10	23	15	12	20	165
(26) Newport ...	17	18	11	13	12	13	19	13	28	22	17	20	203
(27) Shifnal ...	13	16	10	14	14	12	20	11	26	18	15	21	190
(28) Whitchurch ...	13	16	6	16	10	7	17	10	26	23	10	23	177
(29) Hatton Grange	14	16	12	15	14	12	21	11	29	21	13	25	203
(30) Shrewsbury ...	12	15	10	11	12	11	18	11	26	19	12	22	179
(31) Chetwynd ...	16	18	9	15	11	9	20	13	26	21	17	23	198
(32) Chetwynd ...	15	18	9	15	11	13	19	13	27	21	15	23	199
(33) Fitz ...	16	15	10	15	13	9	17	13	28	21	15	24	196
(34) Newport ...	12	17	10	12	10	10	15	8	24	17	11	18	164
(35) Roden ...	8	8	9	9	10	6	16	6	24	14	5	17	132

TABLE No. 4—(continued).

	JAN.	FEB.	MAR.	APL.	MAY.	JUNE.	JULY.	AUG.	SEPT.	OCT.	NOV.	DEC.	TOTAL.
(36) Shrewsbury ...	14	16	10	11	10	10	18	11	25	19	11	20	175
(37) Shrewsbury ...	20	15	11	11	12	11	18	12	26	19	15	22	192
(38) Shrewsbury ...	15	15	10	12	13	13	18	10	27	21	15	22	191
(39) Worfield ...	12	17	11	15	14	14	16	15	28	19	15	22	198
Totals ...	526	622	365	466	516	374	559	442	991	708	529	843	**6977**
Averages ...	15·1	16·8	9·8	12·5	13·9	10·1	15·1	11·9	26·7	19·1	14·2	22·7	**188.5**

TABLE No. 5.

Highest and Lowest Temperatures in each month.

	Jan.	Feb.	Mar.	Apl.	May	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
(2) Burwarton ...	47 20	56 27	74 27	72 28	89 34	89 40	86 42	86 44	75 32	66 32	45 28	51 24
(7) Church Stretton ...	52 20	54 21	64 28	65 22	90 31	86 40	86 33	82 46	68 34	56 32	54 28	52 30
(12) Broseley	50 17	57 19	67 24	64 26	82 34	78 34	78 37	80 42	68 33	57 30	53 22	57 23
(14) Wistanstow ...	48 21	55 25	68 28	66 29	80 36	76 37	79 38	81 43	67 38	59 33	58 24	58 27
(16) Craven Arms ..	54 17	58 24	65 28	68 28	82 36	80 39	80 42	80 44	68 34	59 32	56 22	58 25
(24) Bromfield ...	54 13	56 23	68 24	68 24	82 33	82 34	82 36	82 40	68 33	62 28	57 18	58 21
(25) Bridgnorth ...	53 8	59 20	71 25	68 25	87 33	85 34	85 38	82 34	72 30	58 28	51 17	58 19
(27) Shifnal	53 15	56 24	68 28	68 27	83 34	78 35	31 38	83 40	71 32	64 30	57 22	59 27
(30) Shrewsbury ...	53 13	57 23	72 24	65 26	85 34	79 36	74 49	84 38	71 31	63 29	58 19	59 24
(31) Newport ...	48 12	55 24	63 26	62 26	77 33	79 37	78 41	80 40	70 31	64 31	52 22	58 29
(33) Fitz	53 12	56 26	71 25	69 28	82 34	81 36	82 40	84 40	70 34	61 29	56 20	56 25
(34) Newport	55 13	57 27	67 29	67 28	81 34	77 31	79 37	81 41	70 34	74 32	63 25	52 25
(35) Roden	52 11	56 19	65 23	65 24	80 32	78 33	82 31	84 35	75 30	63 24	57 15	57 28
(39) Worfield * ...	55 16	64 21	75 26	74 26	96 32	88 34	94 36	86 38	76 32	66 31	85 21	68 28
	672 208	732 326	883 365	867 367	1080 470	1048 500	1052 543	1069 565	913 458	806 421	717 303	733 355
	52 16	56 25	68 28	67 28	82 36	81 38	81 42	82 43	70 35	62 31	55 23	56 27

* Left out in reckoning maxima averages.

W. M. D. La Touche.